

44. (New) A modular building structure according to claim 43, wherein the insert is received in each aperture.

45. (New) A modular building structure according to claim 43, wherein each module comprises an access chamber that is open to the inside of the module so as to facilitate insertion of the fixing members and flexible inserts.

46. (New) A modular building structure according to claim 43, wherein the fixing members and insert are disposed in a floor or ceiling cavities in the building modules.

47. (New) A modular building structure according to claim 43, wherein the insert is a grommet.

48. (New) A modular building structure according to claim 24, wherein the building modules have floor and ceiling cavities for receipt of the mains service supplies.--

### REMARKS

Reconsideration of the present application is respectfully requested.

Applicant thanks the Examiner for the indication that claims 34 and 36 contain allowable subject matter.

### Drawings.

The drawings were objected to as failing to comply with 37 C.F.R. 1.85(p)(5).

Figures 2 and 3 have been modified to include a mention of elements 26 and 27.



The Office Action states that the “foundation of foamed mineral in-fill” must be shown or the feature cancelled from the claims.

Claim 34 and 36 have been amended to remove reference to the foundation of foamed mineral in-fill.

Applicant respectfully requests withdrawal of the objections to the drawings.

#### Specification.

The disclosure was objected to on the basis of having an incorrect reference numeral on page 6 at line 16.

Applicant has amended the specification to change the reference “bores 14” to --bores 24--, and also have changed the reference of “ housings 12” to -- housings 22--. With these changes, Applicant respectfully requests withdrawal of the objection to the specification.

#### Claim objections.

Claims 24, 25, 28, 31, 37 and 40 were objected to for various informalities. In addition, claims 22-36 each include renumbering, as noted by the Examiner in the Office Action.

Claims 24 and 25 have been amended with respect to their dependencies. Claims 37 and 40 have been cancelled, without prejudice to their consideration in a continuing application. With regards to claims 28 and 31, Applicant has amended claim 22, which claims 28 and 31 both depend upon. Claim 22 now includes a plurality of building modules. With these amendments, Applicant respectfully requests withdrawal of the claim objections.



Claim rejections – 35 U.S.C. § 112.

Claims 22-34 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention.

With regards to claim 22, the phrase “pre-fitted for its intended use” has been removed in an amendment to claim 22.

With regards to claims 25, 29 and 32, each of these claims depends upon claim 22. Claim 22 has been amended to include a positive recitation to a plurality of building modules. With this amendment, claims 25, 29 and 32 are definite and clear. Applicant respectfully requests withdrawal of the rejection of claims 22-34.

Claims rejections – 35 U.S.C. §102.

Claims 22, 23, 25-27, 32 and 35 were rejected under 35 U.S.C. § 102 as being anticipated by U.S. Patent No. 3,742,666 to Antoniou.

Claim 22 has been amended to specify more precisely the connection between the building modules and the service module. It now states that ends of the building modules are connected to openings in the service module. This provides for a very compact and efficient arrangement allowing direct connection of the services from the service module to each building module. Method claim 35 has been correspondingly amended.

The examiner has cited Antoniou as anticipating claims 22 and 35. It is submitted that the new wording of claims 22 and 35 is now clearly distinguished from Antoniou. This document describes a plurality of building modules (18-23) that are supplied with services from



a tunnel unit 15. There is no direct connection of the building modules to the tunnel unit. Thus, in contrast to the inventions of claims 22 and 35, the tunnel unit does not serve as a corridor that provides access to each of the building modules. Moreover, in Antoniou it is necessary for a separate conduit (16, 17) to supply the services to each of the building modules. This conduit extends both vertically and horizontally. In the present invention the direct connection between the service module and the building modules not only provides for a compact arrangement whereby the corridor provides access to each of the building modules but also it enables the services supplied by the corridor to be directly fed to the building modules without the need for a separate conduit. With these amendments, Applicant respectfully requests withdrawal of the rejection of claims 22, 23, 25-27, 32 and 35.

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Claims 37 and 38 were rejected as being anticipated by U.S. Patent No. 3,112,579 to Needham et al.

Claims 37-41 have been cancelled, without prejudice to their consideration in a continuing application.

Claim rejections – 35 U.S.C. § 103.

Claims 24 and 28-31 were rejected as being unpatentable over Antoniou '666. Applicant respectfully disagrees with this rejection.

To establish a *prima facie* case of obviousness, there must be some suggestion or motivation either in the references themselves, or in the knowledge generally available to one of ordinary skill in the art to modify the reference or to combine reference teachings. MPEP §



2143. However, the level of skill in the art cannot be relied upon to provide the suggestion to combine references. Al-Site, Corp. v. VSI International, Inc., 50 U.S.P.Q 2d. 1161 (CAFC 1999); also MPEP § 2143.03.

The Office Action does not show any motivation or suggestion for making the proposed modification, and the modification proposed by the Office Action appears to be based on only hindsight. However, the CAFC has consistently rejected hindsight as a basis for claim rejection. "To prevent the use of hindsight, this court requires the Examiner to show a motivation to combine the references that create the case of obviousness." In re Rouffet, 47 U.S.P.Q. 2d. 1453, 1455 (CAFC, 1998); also MPEP § 2142.

Applicant respectfully asserts that the Office Action does not provide any motivation for modifying Antoniou, and further that the modification appears to be based upon hindsight after reading claims of the Applicant. Since a *prima facie* case of obviousness has not been established, Applicant respectfully requests withdrawal of the rejections of claims 24 and 28-31.

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Claims 37 and 39-42 were rejected under 35 U.S.C. § 103 as being unpatentable over U.S. Patent No. 3,292,327 to Van der Lely.

Applicant has cancelled claims 37 and 39-42, without prejudice to their consideration in a continuing application.

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Claim 33 as rejected under 35 U.S.C. § 103 as being unpatentable over Antoniou '666 in view of Van der Lely '327. Applicant respectfully disagrees with this rejection.



As noted above, it is a requirement that there be motivation, other than hindsight based on the claims under examination, in order to modify a reference. Since no motivation has been shown, a *prima facie* case of obviousness has not been established, and Applicant respectfully requests withdrawal of the rejection of claim 33.

New claims.

Applicant is adding new independent claim 43 and new claims 44-47 dependent upon claim 43.

Claim 43 includes the connection arrangement between adjacent building modules. It includes first and second fixing members that are interconnected by the flexible resilient insert. Support for this claim is shown in Figure 4a and described in the description on page 7.

It will be appreciated that claim 43 is patentably distinct over both Needham and Van der Lely, neither of which shows a fixing arrangement in which first and second fixing members are interconnected by a flexible insert that bridges adjacent building modules.

In addition, Applicant has added new dependent claim 48 which depends upon pending claim 24.



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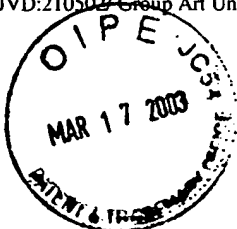
Applicant has cancelled claims 37-41; amended claims 22 through 36; and added new claims 43-48. Applicant respectfully requests examination of pending claims 22-36 and 43-48. The undersigned welcomes a telephonic interview with the Examiner, if the Examiner believes that such an interview would facilitate resolution of any outstanding issues.

Respectfully submitted,

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**VERSION WITH MARKED CHANGES**

**IN THE SPECIFICATION**

**The paragraph on page 6 beginning at line 3 has been amended as follows:**

Each cabin module 1 has a plurality of connection points 20 (see figure2) disposed at regular intervals at the top and bottom of all four walls 4, 5, 6 and at open ends of the cabin. The connection points 20 permit adjacent cabin modules 1 to be connected together by fixing arrangements 21 (see figure 3) that are secured from inside the floor or ceiling cavities 10, 11 and are defined by housings 22 (one shown in figure 4) disposed in the floor and ceiling cavities 10, 11. Each housing 22 has a circular access chamber 23 that is open to the interior of the cabin and an elongate bore 24 extending radially from the access chamber 23 and out through a wall or an end frame of the cabin module 1. The fixing arrangement 21, shown in figure 3, comprises a double-headed fastening bolt 25 that carries a resilient but flexible grommet 26 of elastomeric material such as Neoprene or EPDM and two collars 27 each side of the grommet 26. In use the grommet 26 and bolt 25 extend into the aligned elongate bores ~~14~~ 24 of the connection point housings ~~12~~ 22 of adjacent cabin modules 1 so as to connect two cabin modules 1 together. Figure 2 shows the fixing arrangement 21 being used to connect together two cabin modules 1 side by side. The same arrangement is used to secure cabin modules 1 in vertical array, end-to-end or to connect corridor modules 2 to cabin modules 1. The open access chamber 23 of the housing 22 allows the fixing arrangement 21 to be easily inserted or removed.

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## IN THE CLAIMS

For the sake of clarity, Applicant uses the same claim numbers as the Examiner in the Office Action.

Claims 37-42 have been cancelled without prejudice to their consideration in a continuing application.

Claims 43-48 have been added.

Claims 22 through 36 have been amended as follows:

BT 22. 25: (Once Amended) A modular building structure comprising: a service module defining a plurality of connection openings ~~nodes for connection to separate building modules~~, a plurality of building modules each having a first end with an opening, said first end of each building module being connected to the service module at a respective connection opening such that the opening of the building module is in communication with the connection opening of the service module, the service module containing apparatus for the supply and distribution of at least one mains service to the building modules, each building module being free-standing, ~~pre-fitted for its intended use and being~~ connected to ~~one of said connection nodes and to~~ said supply of at least one mains service, wherein the service module is in the form of a corridor walkway linking the building modules.

23. 26: (Once Amended) A modular building structure according to claim 22 25, wherein each module is an open-ended box configuration.



24. 27. (Once Amended) A modular building structure according to claim ~~s 25 or~~  
~~26~~ 22 or 23, wherein the service module has floor and ceiling cavities in which the mains service  
 supplies are routed.

25. 28. (Once Amended) A modular building structure according to ~~any one of~~ claim  
22 ~~25~~, wherein one building module is a dedicated plant room that feeds the mains supply  
 service to the service module.

26. 29. (Once Amended) A modular building structure according to claim 22 ~~25~~,  
 wherein the service module is sectional so that it can be extended or shortened to provide more  
 or less connection nodes as required.

27. 30. (Once Amended) A modular building structure according to claim 22 ~~25~~,  
 wherein there is provided a plurality of service modules, some modules being disposed in a  
 direction transverse to others.

28. 31. (Once Amended) A modular building structure according to claim 27 ~~30~~,  
 wherein the mains service is for waste disposal and each service module is provided with a  
 holding tank that is connected to a lavatory or wash area of an adjacent building module.

29. 32. (Once Amended) A modular building structure according to claim 28 ~~31~~,  
 wherein holding tanks of adjacent service modules are connected by a suction waste pipe.



30. 33: (Once Amended) A modular building structure according to claim 22 25, wherein the mains service supply is air conditioning and each service module is fitted with a heat exchanger and has an external pump for evacuation of warm air.

31. 34: (Once Amended) A modular building structure according to claim 30 33, wherein each building module also has its own heat exchanger that is connected to the pump and heat exchanger of an adjacent service module.

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Cont'd* 32. 35: (Once Amended) A modular building structure according to claim 22 25, wherein each adjoining pair of building modules or service modules has apparatus for connecting adjacent modules, the apparatus comprising a housing defining apertures that extend into the structure of each module and a flexible resilient insert that is snugly received in each aperture and bridges the two modules, the insert being supported on a fixing element that is secured to each of the modules.

33. 36: (Once Amended) A modular building structure according to claim 22 25, comprising multiple storeys, vertically adjacent modules being connected by a connecting member comprising a resilient flexible insert attached to one module and received in an aperture of the vertically adjacent module.



34. 37: (Once Amended) A modular building structure according to claim 22 25, wherein the modules are connected ~~to a foundation of foamed mineral in fill.~~

*By Cont'd*  
35. 38: (Once Amended) A method for constructing a modular building structure, the method comprising ~~the steps of:~~ preparing a site on which the building structure is to be located; installing a service module on the prepared site, the service module defining a plurality of connection openings ~~nodes~~ each for connection to a respective separate building modules; each building module having a first end with an opening therein; installing at least one mains supply service to the service module; connecting at least one pre-constructed building module to the service module at a connection opening therein such that the connection opening is in communication with said opening in said first end; ~~node and~~ connecting the building module to the mains supply service of the service module; and furnishing the service module such that it is in the form of a corridor walkway linking the building modules.

36. 39: (Once Amended) A method according to claim 38, comprising further steps of filling a clearance between the module and ground ~~with a foundation of foamed mineral in fill.~~